The Last Day Calculation at base of Anno Domini

by Sepp Rothwangl CALENdeRsign, Vienna Austria calendersign@gmx.at

Abstract:

Anno Domini, or the year Christ was born, was an invention made some 1400 years ago by Dionysius Exiguus, who adjusted a new Easter Computus in order to solve a dispute on the correct date of Easter and to avert end time fever.

Right at the beginning of Christianity, early Christians expected in the near future the return of Christ, which was associated with the end of the world. Such a scenario ocurred already in the cosmic year Anno Mundi 6,000. Based upon a teleological concept by interpretating the Bible AM produced a calendrical end time with AM 6000 due to equating the Six Days of Genesis with the verse of the Bible saying one Day of the Lord was the same as 1000 years of mankind. To combat the end of the world fever caused by this time concept at the beginning of the 6th century Dionysius Exiguus created a new temporal hinge point for counting the years: Anno Domini. Obviously this chronology is not in harmony with ancient historical works, as even former Pope Benedict XVI recognized, but is an end time prophecy by interpreting the Gospel, the Apocalypse, the scientific cosmology of antiquity, and astronomical values. New evidence shows that Dionysius intended to begin his "anni ab incarnatione Iesu Christi" exactly 2000 years before his calculated Last Day.

Article

'Mythic' was the scientific language of the past (Herta von Dechend)

As far as we know, we owe the establishment of the Anno Domini count to the Scythian canonist and scholar Dionysius Exiguus (Dennis the Little). Only a few things are known about his life. He lived some 1,500 years ago at the beginning of the sixth century CE and was a colleague of Cassiodor, who was among the clergy in the court of Theodoric, king of Ostrogoths.

Dionysius Exiguus is the author of the Collectio Dionysiana, canons of the councils and synods of Nicea, Constantinople, Calcedon, and Sardica (Peitz 1960). One of his works, which is part of the "Patrologia Latina," is still powerfully influential today, although it is not in harmony with ancient historical facts (Ratzinger 2012). Dennis invented the AD count by establishing a new Easter calculation, which he dedicated in 525 to a Bishop Petronius. (Schwartz 1905) He called his Easter table CYCLUS DECEMNOVENNALIS DIONYSII, (19-year cycle of Dionysius) which now commonly is called LIBER de PASCHATE (Book of Easter). (Krusch 1938)

Dionysius said his reason for his new cycle was to avoid counting the years after Diocletian:

...Because the blessed Cyril began his first cycle in the 153rd year of Diocletian and ended his last cycle in the 247th year of Diocletian, we have to start in the 248th year of this man, who was a tyrant rather than emperor. However, we did not want to preserve the memory of an impious

persecutor of Christians in our cycles, but chose rather to mark the times with the years from the incarnation of our Lord Jesus Christ, so that the commencement of our hope will appear more familiar to us and the origin of the redemption of mankind, that is the Passion of our Redeemer, will shine in a more glorious way. (Translation: Declercq).

The reason that Dionysius gives for his invention is only a pretext; in fact there exist several other reasons:

- 1. Controversy over a correct date for Easter
- 2. The arrival of Anno Mundi 6000
- 3. The Great Year doctrine
- 4. Astrological and planetary allegories in the Gospels
- 5. End-time prediction of the Revelation of John of Patmos
- 6. The change of the equinoctial constellations
- 7. The rate of the precession of the equinoxes
- 8. Argument and result
- 9 Conclusion

1. Controversy over of a Correct Date for Easter

Between Constantinople, Alexandria, and Rome (Mosshammer 2009) there existed over the many centuries a severe controversy over the date of Easter (Geerlings 1999). It occurred because of different calendrical systems as well as by different interpretations of the Gospels. The new Easter Computus of Dionysius was one of many attempts to solve this problem.

2. The Arrival of Anno Mundi 6000

Another reason was the calendrical end-time because of the imminent arrival of the cosmic year 6000 in the first Christian chronology, called Anno Mundi (AM).

The concept of Anno Mundi (AM) was an invention in 2nd century by Julius Sextus Africanus (Wallraff 2006) and corresponds to a quotation in the New Testament stating that Christ appears in the last hour.

[I John 2:18]: Children, it is the last hour; and as you have heard that antichrist is coming, so now many antichrists have come; therefore we know that it is the last hour.

Consequently, in the AM count, the date of Christ's birth was adjusted in the middle of the sixth millennium to the year AM 5500, because it corresponded with the 11th hour of the available 12. (6000:12*11=5500)

Even the dimensions of the Ark of the Covenant was used as an analogy for the 5,500 years. [Exodus 25:10] tells that it was 2 1/2 cubits long, 1 1/2 cubits wide, and 1 1/2 cubits high. Irion (Hieron) of the court of Constantinople and Hippolytus both interpreted these dimensions, amounting to 5 1/2 cubits, as symbolic of 5,500 years.

The AM method profoundly influenced early Byzantine and Roman Christian chronology, as shown in the chronicles of Hippolytus in Rome, Sulpicius Severus, Panodoros, and others. Out of

this concept arose the Alexandrian method of Annianos, who lived in the year that the patriarch Theophilus died (412 CE).

The Anno Mundi time systems became very popular in the first Christian centuries, but created a huge problem: end-of-the-world fever, caused by a looming Seventh Day that equated with the end of the 6000-year period and corresponded to a date 500 years after Christ's purported birth. "At the turn of the fourth to fifth centuries, i.e. precisely the moment when the barbarian invasions may have stirred up apocalyptic anxieties, the North African bishop Julius Hilarianus, for instance, wrote a treatise 'On the Duration of the World,' in which he calculates 5530 years from creation to the Passion of Christ, and 369 years from that event until the consulate of Caesarius and Atticus (AD 397); there remain, so he concludes, 101 years to go before the Resurrection of the dead." (Declercq 2000.).

This world's expiration date as predicted by the AM system was preached by a number of bishops. A century later, this surely caused problems of credibility when the prophesied end did not come! What to do? A new Bible-connected chronology was needed in order to head off hysterical civil and religious disturbance.

There were three strategies available to combat the fear caused by this time concept and avert Chiliasm, Millenarianism, and eschatological fever:

A. Shift the era of creation to the past in order to show that the dreaded year AM 6000 had long passed, as the chronicler John Malalas did by identifying the year 6000 with the passion of Christ. This had the consequence that the Seventh Day had already begun, which surely was inconvenient for Church authorities, since it erased the motivating effect of the Last Judgment on believers.

- B. Rejuvenate the age of the world and delay the year AM 6000 into the future, which was the method of the fourth century chronicler Eusebius. Influenced by Jerome, Eusebius delayed the birth date of Christ by three centuries to AM 5199. According to this popular world-year-count, the year 6000 would occur around 800 CE again, which was reason for the Venerable Bede in the ninth century CE to favor Anno Domini (Wallis 1999).
- C. Start a new counting of the years from another fictitious point in time: Christ's incarnation. Dionysius Exiguus made the most pplular attempt at this when he created a new temporal hinge point for counting the years: Anni ab incarnatione Domini Iesu Christi (The years since the incarnation of Jesus Christ).

Yet, influenced by current perceptions Dionysius in fact postponed the return of Christ again into the far future.

These perceptions were the current doctrine of the Great Year and the effect of the wobble of Earth's axis, both mirrored in New Testament and Christian symbolism.

3. The Great Year Doctrine

The doctrine of the Great Year (Waerden 1952) is based upon the idea of the return of everything. (Staehlin 1960) It states that the planets generate time, and if the planets repeat their movement, then time and all events repeat. (Calatay 1996)

A quote of Eudemos illustrates this idea very vividly:

"There is a common multiple of all orbital times, the large year; at its expiration all planets are

again in the same place. If one believes the Pythagoreans, then I will return also in the future, as everything after its number returns, and I will tell you here again fairy tales, holding this stick in my hand, while you will sit likewise before me. Likewise everything else will repeat itself." (Eudemos, Aristotle's disciple at the Lykaion at Athens).

Heraclitus Stoicus equates the Olympic Symposium of Gods, which took place after the Titan Prometheus created mankind at a conjunction of the seven naked eye planets.

"Some people want the conjunction of the seven planets in one zodiacal sign to be referred to by these words of Homer, and also the universal destruction, whenever this should happen. He (Homer) alludes to the confusion of the universe when he brings together Apollo, i.e. the Sun and Artemis, whom we identify with the Moon, as well as the stars of Aphrodite, Ares, Hermes and Zeus." (Heraclitus Stoicus, Quaestiones homericae, 53)

According to Seneca the astrologer Berossos (of 3rd cent. BC) describes such an end time situation very impressively placing all planets in a straight line:

"Berossos, who interpreted the prophecies of Bel, attributed... the end of the world and its aftermath to the movements of the planets. He maintains that the Earth will burn whenever all the planets, which have different orbits, converge... and are so arranged in the same path that a straight line can pass through all their orbs and there will be a further great flood, when the planets so converge in Capricorn" (Seneca, Naturales Questiones 3.29.1) (Verbrugghe and Wickersham. 2001: p 66)

We find an almost perfect pictorial representation of Berossos' idea (Schnabel 1968) of the planets aligned in a straight line in images of the Babylonian God Nergal (Mars), a Syrian Sun God, and on coins of Roman emperor Constantine showing a planetary alignment on a military standard.



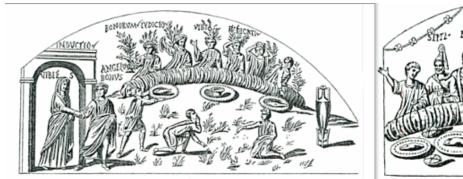
Fig.1 Comparison of Babylonian Nergal, Sun God of Syria and coin of Constantine with planetary alignments

The huge list of authors of the GY-doctrine shows its circulation until 6th century (Hamel 1996)

5 c. BC	Pythagoras
4 c. BC	Plato, Aristotle
3 c. BC	Berossos, Eudemos
2 c. BC	Posidonios, Alexander Polyhistor, Juba
1 c. BC	Diodourus Alexandrinus, Ps. Epikurus, Lucretius, Vetusta Placita, Varro, Dydimus,
	Hyginus, Vitruvius, Eudoros Diodorus Siculus,
1 c. CE	Papirius, Fabianus, Polyhistor interpolatus, Seneca, Plinius, Josephus, Pamphilius

2 c. CE	Aetios, Ps. Plutarchos, Theophilos Tatianos, Diogenaios, Ailianos Nikomachos
3 c. CE	Kleomedes, Censorinus, Abydenos, Hippolytos, Africanus, Clemens
	Alexandrinus, Athenios
4 c. CE	Anonym. Aratum isagoga, Eusebios, Augustinus, Hesychios
5 c. CE	Stobaios, Isodoros, Kyrillos, Panodoros, Helladios
6 c. CE	Palchos, Versio latina barbara, Scholastica Germanici, Verso Armeniaca,
	Synkellos, Agathias, Photios

We find iconographic ideas of the heavenly symposium as an allusion of the beyond in pre-Christian funeral scenes, such as the sepulcher of Vincentius in Rome. (Nilsson 1988)



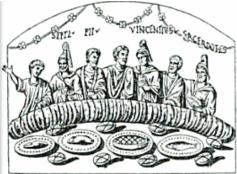


Fig.2: Wall painting of funeral, Rome. Vincentius during introduction and as one of the seven sacerdotes in the beyond.

In many variations we find the same idea e.g. in the seven Sages, the seven Rishis during the deluge in India, and the seven Sleepers of Ephesus, which is found also in the Qur'an as Al Kahf, the legend of the cave (Surah 18, verse 9-26).

The Christian legend of the seven Sleepers tells that in year 251 Emperor Decius martyred seven Christians by walling them inside a cave. After 200 (or 372) years they resurrected. An echo of this idea is found in Grimm's fairy tale of the Seven from Swabia, who chase with

one spear a monster in the shape of a hare. Their names point us to the days of the week and thus to the planets. Another example is the fairy tale "Couragious Tailor" also called "Seven with One Stroke," who finally conquers a giant.

From Nemesius, a Christian writer of about 400 CE, we have a witness that the alignment of the Planets was imagined at the Resurrection of Christ at the end of the world:

"According to the Stoics the conflagration and the destruction of all beings is generated, after stated periods of time, by the planets, when they come back, (...) Then, from the start the world is restored anew. (...) There will be again Socrates and Plato and every man, with their friend and fellow-citizen. (...) Christians imagine the Resurrection by way of this restoration, (...) Christ's words instruct that the Resurrection will take place once and not periodically."

For this quote of Nemesius we find confirmation in several graffiti in early Christian catacombs of Rome, which is usually called the Meal of the Seven (Pillinger 2011), echoing the Olympic symposium of Gods (the alignment of the seven planets) at the beginning of mankind, but also portraying such a situation at its prophesied end.



Fig.3: Early Christian funeral graffiti in the Catacombs of Rome. The Meal of the Seven, a Christian imagination of the afterworld

We have witness of the Great Year doctrine also from Scythia, the homeland of Dionysius Exguus from the recently found treasure of Preslav with the number seven prominent in its design.



Fig.4: Treasure of Preslav, Bulgaria 8th cent. Rosette of bronze, with seven astral runes and golden necklet with seven enameled lokets

In Bosnia and Herzegovina are still found so called Stecak, tombstones with seven astral symbols of Bogumils, (Hadzibegovic 2010) a heretic movement based upon Manichean and Zoroastrian ideas, who were related to Paulicians. The Bogumils were banished by the Byzantine Empire and emigrated from the Black Sea region called Scythia the homeland of Dionysius Exiguus.



Fig.5: Stecak of Bosnia and Herzegovina, Tombstone of Bogumils.

4. Astrological and Planetary Allegories in the Gospel

Like an allegory the Gospel of John 21:1-4 tells that Jesus came back after his crucifixion to seven of his disciples. These had taken up their former occupation as fishermen at Lake Tiberias, but with little success, because they had caught nothing in their nets. Jesus stood on the shore and told them to throw the net on the other side of the boat, after which they caught 153 fish. After eating some fish, Jesus gave Peter three times the missionary order: "feed my lambs" and "pasture my sheep."

A similar story is told by Luke 5:1-10 about the event at Lake Gennesaret, where seven of his disciples had caught nothing all night. Jesus gave the advice to put the net into deep water and they caught such a large number of fish that their nets began to break. Then Jesus says: "From now on you will fish for men."

As an astrological allusion these words indicate the shift from the age of Aries to the new age of Pisces

The comparison of this parable with the Hindu myth of the deluge with Manu and the seven Rishis, which as well represent the seven planets, makes evident the mythic shift of an age, if seven of such characters converge.



Fig.6: Manu and the seven Rishis at the deluge (left); Seven disciples of Jesus fishing, Goslarer Evangeliar (right)

We find in the Gospel another pictorial description of an alignment of all planets at the end of time in the end time parable of Matthew with the marriage scene, where five wise and five foolish virgins with lamps wait for the bridegroom. The marriage is a classic ancient metaphor for an alignment of sun and moon, at new moon or even at a solar eclipse, when the other planets can be aligned (shine like the lamps of the wise virgins) or not (like the foolish virgins with unlighted lamps):

"No one knows either the day or the hour wherein the Son of Man cometh. (...) At that time the kingdom of heaven will be like ten virgins who took their lamps and went out to meet the bridegroom. Five of them were foolish and five were wise. The foolish ones took their lamps but did not take any oil with them." [Mt 25:1-13]

5. End-time Prediction of the Revelation of John of Patmos

Franz Boll says about the astrological and astrological context of the Apocalypse of John of Patmos that the text tells of the starry sky and must have extraordinary meaning at the cusp of a new aeon or age. (Boll 1903, 1914)

Revelation invoking the seven cities equates clearly the seven stars with the lamps or deities of the seven cities.

[Rev 1:11] "Write what you see in a book and send it to the seven churches, to Ephesus and to Smyrna and to Pergamon and to Thyatira and to Sardis and to Philadelphia and to Laodicea." [Rev 1:20] "As for the mystery of the seven stars which you saw in my right hand, and the seven golden lamp stands, the seven stars are the angels of the seven churches and the seven lamp stands are the seven churches."

The deities of the seven cities are easy to identify as the gods of the seven planets such as in Ephesus once was the main sanctuary of Artemis, Goddess of the moon; Pergamon with its famous altar of Zeus relates to planet Jupiter and so on. The introducing invocation to the seven cities of the Apocalypse is a hint to the doctrine of the Great Year and to an alignment of all planets at the end of time.

6. The Change of the Equinoctial Constellations

Precession is a very slow movement of Earth's axis, which can be comprehended only after generations and thus in former times was handed down mostly by cults and religions (Dechend and Santillana 1977). Earth's axis describes by a gyroscopic movement a double cone in the shape of an hourglass, which points to the Northern and Southern celestial hemispheres, having the center in the poles of the ecliptic. The Northern rotation axis of the Earth describes a circle among the stars, centered on the ecliptic north pole.

The wobble of Earth's axis has the effect that before a decisive moment of the year, i.e. at the dawn of the day of vernal equinox during many millennia one constellation after the next announces New Year's Day in spring.

Many yearly count start with the vernal equinox, such as the Persian calendar, which begins with Nauroz (meaning new day) but also the beginning of Dionysius' Anno Domini, is 25th of March. Also the Latin names of the months, September, October, November, and December make sense only if you start counting with March at the vernal equinox.

Due to the gyroscopic wobble of the Earth every about 1500 or 2500 years, depending on the size of the constellations, each succeeding constellation not only announces the new year's day, but identifies the temporal orientation and adoration of the age. The change of these constellations seemingly was noted by a change in worship handed down in myths and idols.

Some 5,500 year ago, when Taurus was at the heliacally rising constellation, we find bull symbolism in different myths and cults of Europe (the myth of king Minos), Middle East (Baal of Mesopotamia and Golden Calf of Bible) and Egypt (Apis bull).

Some 3,500 years ago the vernal equinox constellation Aries announced the next age and had an effect on the myth of the Argonauts, searching for the Golden Fleece, the wool of a winged ram. Also Moses appears with horns of a ram, condemning the former bull worship, belittled as the Golden Calf.

Other expressions of this change were the ramlike Amun in Egypt and the Mithrean religion (Strohm 2008) with Mithras slaughtering the celestial bull (Beck 2006) and the myth of Theseus killing the Minotaur, a perversion of the Minoan bull.

Some 2000 years ago fish symbols represented the current equinox constellation Pisces, embodied in first Christian symbols. Jesus was named after the Latinized Greek word for fish: ICHTHYS. Another Christian symbol, the sacrificed lamb, is a parallel to the slaughtered bull after the age of Taurus during the age of Aries.



Fig.7: Petroglyphs in early Christian Roman catacombs

If we look now before dawn of vernal equinox to the sky we can observe the breaking of a new age of precession: Aquarius.

It seems that John of Patmos has prophesied it with these words:

[Rev 14:2] "And I heard a voice from heaven like the sound of many waters and like the sound of loud thunder."

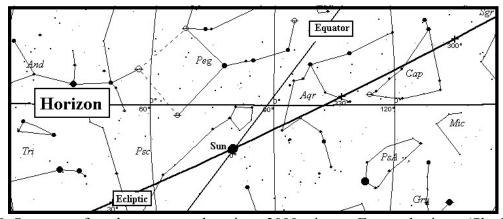


Fig.8: Star map of predawn at vernal equinox 2000, view to Eastern horizon. (Sky Map)

7. The Rate of the Precession of the Equinoxes

One of the first to calculate how the constellations shift against the equinoxes and solstices was Hipparchos, of whom Ptolemy reported:

"On the variability of the solstices and equinoxes Hipparchos compared lunar eclipses of his time with such in former times of Timocharis (approx. 150 years before) and came to the result that the star Spika was 8° apart from the signs of autumn equinox, but at Timocharis' time almost 6° distant." (Ptolemäus 1963.)

As this report and also calculations of Ptolemy himself show both could have known better of an approximate rate of 75y/1° but instead used and handed down a rate of 100y/1°, giving 3000y each 30°, which was used in the Western civilization until the time of Kepler.

Because the correct rate is about $71.6y/1^{\circ}$ ($2148y/30^{\circ}$) soon astronomers of the orient (Hartner 1979) realized that Ptolemy's rate was wrong and used a faster rate estimating only 2000y for 30° which equals $66y/1^{\circ}$.

List of oriental medieval astronomers using the rate 2000y each 30°:

Early Indian Brahmin value (Bennedik 2007, de La Galaisière 1789)

Theon of Alexandria (4th Cent.) a changing rate of 66 y/1

Tables of the Shah (Zij-i Shah, 6th Cent.) (Burckhardt and Waerden 1969)

Al-Khwarizmi, al zij Sindhind (9th Cent.)

Tabulae probatae or az-Zig al-mumtan (9th Cent.)

Al-Battani, called Albategnius, al-Zij (c. 880)

al-Sufi, genannt Azophi (c. 965)

Al Biruni (973-1048), al Canon al Masud

Arabic fixed star catalogue of 1st Oct. 1112 CE (ed. Paul Kunitzsch)

Libros del Saber of Alfons of Kastilla (1252-1284)

Judah ben Verga of Lissabon (c. 1470) (Goldstein 2001)

This rate of 2000 years for 30° results in 666 years each decan of 10°. The ceiling of the temple of Dendera shows the 36 decans as human characters. The apocalyptic number 666 thus represents the value of precession for each decan.

[Rev 13:18] "This calls for wisdom: let him who has understanding reckon the number of the beast, for it is the number of a human, its number is six hundred and sixty-six."

It seems that a medieval star map from about 800 CE expresses the imminent threatening new age with the image of the horned beast of Apocalypse, showing this beast at the position between Pisces and Capricorn, where usually is found Aquarius. (Haffner 1997)

[Rev 13:11] "Then I saw another beast coming up out of the earth; and he had two horns like a lamb and he spoke as a dragon."

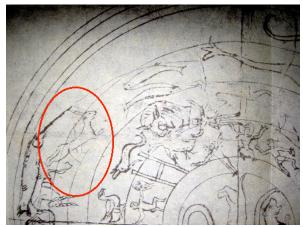


Fig.9: Illustration of constellations. Commentary of Germanicus on the Phenomena of Aratos. Codex Basiliensis of about 800 CE

Revelation also gives an astrological prophesy not only to Aquarius rising on the Eastern horizon but also of the recent view to the Western horizon of the vernal equinox predawn, where Leo is setting:

[Rev 10:1-2] "And he set his right foot on the sea, and his left foot on the land, and called out with a loud voice, like a lion roaring."

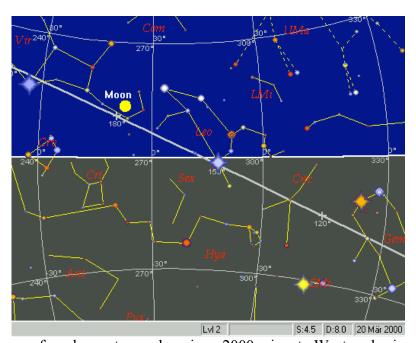


Fig. 10: Star map of predawn at vernal equinox 2000, view to Western horizon. (Sky Map)

How to interpret Revelation [Rev 10:1-2] and the lion stepping with one foot out the sea, we can learn from the myth of Kallisto, which is that she "could never take a bath in the sea", which describes in the mythic language the constellation the Greater Bear as circumpolar and thus never setting. The roaring lion's left foot on the land thus describes Leo as half risen due to precession.

Remember Leo's precessional predecessor at this position, Virgo, attributing Christ being born out of a virgin 2000 years ago.

It is a matter of fact that in May 2000 a salient massing of the classical planets occurred. The alignment of all planets on 5-May-2000: JDN 2451670. Right Ascension: Moon 3h 55m; Sun 2h 51m; Mercury 2h 34m; Venus 2h 14m; Mars 3h 55m; Jupiter 3h 0m; Saturn 3h 11m.

Why does this planetary massing occur in year 2000 of all years? The claim of this article is the thesis, that the appearance and temporal coincidence of this planetary event with the calendrical second millennium was calculated and planned.

It is not of random origin but based upon the plan of Dionysius, who forecast this alignment with commensurable planetary periods known to him and dated it together with another astronomical phenomenon: precession.

8. Argument and Result

Dionysius searched for an alignment of all planets in order to find Christ's second coming, the main topic of Christian belief. After having found such a planetary massing 1500 years ahead of his time he assumed he had found the date of the Last Day at the end of the age of Pisces. Then, 2000 years before this calculated alignment he dated the beginning of his Anno Domini years according the value of precession of 2000 year each 30° at the vernal equinox (the former feats day of incantation of Christ). He must have sought to be in harmony with the beginning of the Age of Pisces (ICHTHYS), the first symbol of Christians. In addition he postponed the end of the world Anno Mundi 6000, which occurred in his lifetime into the far future: AD 2000. As a result in year 2000 of all years a planetary massing took place, within a span of 26°. Such a massing, where all planets are in prograde motion are very rare. p (6000y, 30°) = 0,026

Yet, Dionysius gives us no hint of how he has performed his calculation. No doubt he could have done it, just like his contemporary Aryabhata of Kusumpara (Clark 1930), who calculated the start of the Kali Yuga some 3600 years backwards from his lifetime to a conjunction of all planets on 17th February 3102 BC. Interestingly Abu Mashar dated at the very same year the deluge of Noah (Pingree 1968, Waerden 1980).

Dionysius' reckoning could have been based on the known common multiple planetary periods shown also in the so -called goal year texts, (Hunger 2006) the periods of the inscription of Keskinthos, (Jones 2006) or the knowledge that enabled to construct the Antikythera mechanism. Commensurable planetary periods:

3 Trine, 2 Saturn, 5 Jupiter (59 years)

43 Trine, 29 Saturn, 72 Jupiter, 400 Mars, 854 years 1 moon (before)

65 Jupiter, 875 Moon

152 Venus, 243 years

5 Venus, 99 moon, 8 years, 2920 days

101 Trines, 2006 years. (Rothwangl)

9. Conclusion

The invention of Anno Domini was based upon an end-time-plan with the correct calculation of a forecast of a massing of the classical seven planets. Yet, the dating of Christ's incarnation happened with a wrong value of precession.

Anno Domini is based upon an unrealistic cosmological concept that the world would end at the planetary alignment of May 2000 together with the second coming of Christ.

However, the orientation towards an alignment of all planets has worldwide parallels such as in the Kali Yuga or the Deluge in 3102 BCE, or the Zhuanxu dynasty and calendar in 1953 BC.

An astronomical project in the Austrian Alps has actualized this idea in the planetary trail "Heaven upon Earth." Models in the scale of 1:1 Billion show in size and distance the massing of the classical planets, but as well together with the modern planets Uranus and Neptune the next such alignment, which will occur exactly at vernal equinox in 662 1/2 years. (20-03-2675).

References:

Beck, Roger. 2006. *The Religion of the Mithras Cult in the Roman Empire*. Mysteries of the Unconquered Sun. Oxford.

Bennedik Susanne. 2007. Die Siebenplanetenwoche in Indien. Dissertation. Bonn

Boll, Franz. 1903. Sphaera. Neue Griechische Texte und Untersuchungen zur Geschichte der Sternbilder. Leipzig

Boll, Franz. 1914. *Aus der Offenbarung Johannis*. Hellenistische Studien zum Weltbild der Apokalypse. Leipzig-Berlin

Burckhardt. J. J. and Bartel L. van der Waerden. 1969. *Das astronomische System der persischen Tafeln I*. Centaurus vol. 13

Calatay de, Godefroid. 1996. *Annus Platonicus*. A Study of World Cycles in Greek, Latin and Arabic Sources. Universite Catholique de Louvain. Institut Orientaliste. Peeters Press Louvain - Paris.

Dechend, Hertha von, and Giorgio de Santillana. 1977. *Hamlet's Mill*: An Essay on Myth and the Frame of Time. Godine. Boston.

Declercq, Georges. 2000. *Anno Domini*. The Origins of the Christian Era. Turnhout Belgium. Clark, W. E. 1930. *The Aryabhatiya of Aryabhata*. Chicago.

Evans, James. 2006. *The History and Practice of Ancient Astronomy*. Oxford University Press. Gentil de La Galaisière, G.J.H.J.B. Merck, J.H. [Übersetzer]: *Von der Dauer der Welt, und ihrem verschiednen Alter, nach der Lehre der Braminen*. Der Teutsche Merkur. 1773-89.

Geerlings, Wilhelm. 1999. *Die Berechnung des Geburtsjahres Christi*. Wissenschaftsmagazin der Ruhr-Universität Bochum.

Grimm, Gebrüder: Kinder und Hausmärchen. Erlangen

Goldstein, Bernard R. 2001. *The Astronomical Tables of Judah Ben Verga of Lisbon*. Suhayl. Hadzibegovic, Zalkida. 2010. *Astronomical Heritage in Bosnia and Herzegovina*: Late Medieval Tombstones and Astral Motifs as Their Decoration. Vortrag bei SEAC Konferenz, Gilching. Haffner, Mechthild. 1997. *Ein antiker Sternbilderzyklus und seine Tradierung in Handschriften vom frühen Mittelalter bis zum Humanismus*. Untersuchungen zu den Illustrationen der Aratea des Germanicus. Hildesheim.

Hamel, Jürgen. 1996. *Astronomiegeschichte in Quellentexten*: von Hesiod bis Hubble. Heidelberg, Berlin Oxford. Spectrum, Akad. Verl.

Hartner W. 1979. *The Young Avestian Calendar and the Antecedents of Precession*, Journal for History of Astronomy 10

Hunger, Hermann. 2006. *Astronomical Diaries and Related Texts from Babylonia*. Volume VI: Goal Year Texts. Denkschriften der phil.-hist. Klasse 346. Austrian Academy of Sciences Press. Jones, Alexander. 2006. *The Astronomical Inscription from Keskintos*, Rhodes. Mediterranean Archaeology and Archaeometry, Special Issue, Vol. 6, No 3, pp. 213-220

Krusch, Bruno. 1938. *Studien zur christlich-mittelalterlichen Chronologie*: die Entstehung unserer heut. Zeitrechn. I. Victorius; Ersatz der fehlerhaften Ausg. Mommsens in d. M.G. II. Dionysius Exiguus, d. Begründer der christlichen Ära. Berlin: de Gruyter

Mosshammer, Alden A. 2009. *The Easter Computus and the Origins of the Christian Era*. Oxford University Press.

Nilsson, Martin Persson. 1988. Geschichte der griechischen Religion: Die hellenistische und römische Zeit. C.H Beck

Noone, Richard W. 1997. 5/5/2000. Ice. The Ultimate Disaster. Three Rivers Press. 1997. Peitz, Wilhelm M. S.I. 1960. *Dionysius Exiguus-Studien*, Neue Wege der philologischen und historischen Text- und Quellenkritik. Berlin

Pillinger, Renate J. 2011. *Dead Sea Scrolls and Early Christian Art*. The Dead Sea Scrolls in Context. Integrating the Dead Sea Scrolls in the Study of Ancient Texts, Languages, and Cultures. Volume Two. Brill.

Pingree, David. *Precession and Trepidation in Indian Astronomy before A.D. 1200*. Journal for the History of Astronomy, Vol. 3

Pingree, David. 1968. *The Thousands of Abu Mashar*. The Warburg Institute. London. Ptolemäus. 1963. *Handbuch der Astronomie* (Almagestum). Deutsche Übersetzung v. Karl Manitius. Leipzig.

Ratzinger Joseph, Pope Benedikt XVI. 2012. *Jesus of Nazareth*: The Infancy Narratives. John of Patmos. *Revelation*. Bible Browser Basic Home Page.

http://www.stg.brown.edu/webs/bible browser message.html

Rothwangl, Sepp. 2004. Consideration of the Origin of the Yearly Count in the Julian and Gregorian Calendars. Cosmology Through Time. Ancient and Modern Cosmologies in the Mediterranean Area. G. Giobbi S. Colafrancesco (Editor). Mimesis.

Schnabel, Paul. 1968. *Berossos und die Babylonisch-Hellenistische Literatur*. Hildesheim. Schwartz, E. 1905. *Christliche und jüdische Ostertafeln*. Abhandlungen der Göttinger Gelehrten Gesellschaft.

Staehlin, Ernst. 1960. *Die Wiederbringung aller Dinge*. Rektoratsrede, gehalten zur Jahresfeier der Universität Basel am 18. November

Strohm, Harald. 2008. *Mithra*. Oder: Warum 'Gott Vertrag' beim Aufgang der Sonne in Wehmut zurückblickte. Fink Verlag. München

Verbrugghe, Gerald and John M. Wickersham. 2001. *Berossus and Manetho*, Introduced and Translated. Native Traditions in Ancient Mesopotamia and Egypt. University of Michigan Press.

Waerden, Bartel L. van der. 1952. *Das Große Jahr und seine Ewige Wiederkehr*. Hermes 80. Waerden, Bartel Leendert, van der. 1980. *The Conjunction of 3102 BC*. Centaurus. International Magazine of the History of Science and Medicine, 24

Wallis, Faith (editor). 1999. Beda Venerabilis. De temporum ratione. Liverpool Univ. Press. Wallraff, Martin. 2006. Julius Africanus und die christliche Weltchronik. Walter de Gruyter.

Acknowledgments. Thanks for English corrections to Mrs. Joan Griffith.